

## **ABSTRACT**

The invention relates to a method and a device for processing an electromagnetic signal comprising first and second carriers at first and second carrier frequencies. The method comprises splitting the signal into first and second branches, a first shifting of the frequency of the signal in each of the branches by respective first frequency shifts, and filtering the signal in the first and the second branch in respective first filters. In addition, there is a second shifting of the frequency in each of the branches by respective second frequency shifts, and a first frequency distance between the first frequency shifts, such that after the first shift, the first carrier in the first branch has essentially the same center frequency as the second carrier in the second branch. The first filters have the same filter characteristics, so that the signal in each branch after the first filter comprises only one of said first or second carrier wave, but at the same center frequency.